DATA SHEET

FortiGate® 3810D

Data Center Firewall with 100GE Interfaces

# FortiGate 3810D

Data Center Firewall with 100GE Interfaces

Fortinet's FortiGate-3810D is the only security appliance capable of delivering an unprecedented 300+Gbps throughput, while also featuring 100 GbE interface ports and IPv4 to IPv6 performance parity integral in supporting next-generation fabric.

## Future-Proofing the Next Generation Data Center

It delivers its breakthrough performance and protection in a compact 3U form factor with six 100GE interfaces that preserves scarce rack space while maximizing capacity. Powered by the new FortiASIC NP6 processor, the FortiGate 3810D allows customers to build 100G data centers without worrying about high speed connectivity or throughput of the core firewall.

## Flexible Deployment

The FortiGate 3810D gives you the flexibility to choose the firewall personality that best fits your requirements at the Edge or Core. You can take advantage of the high port density for physical segmentation of your network, as well as the virtual domains (VDOMs) for virtual segmentation.

## Key Features & Benefits

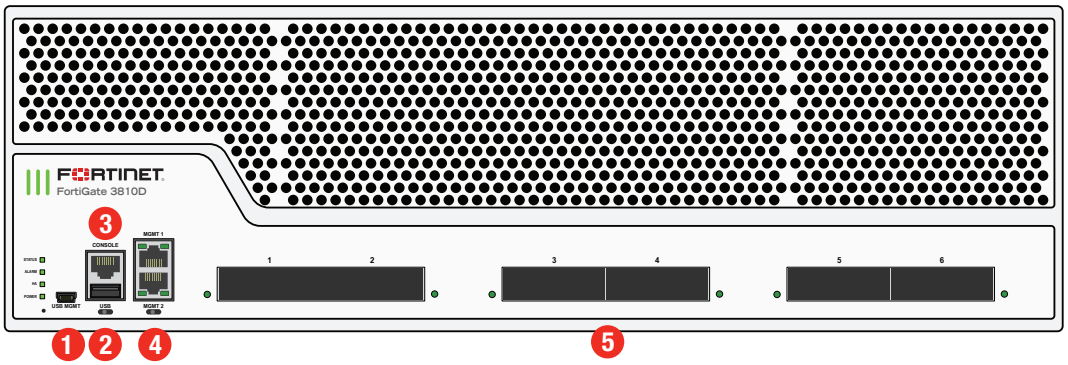
| | |
|---|---|
| High Throughput, Ultra-low Latency, Powered by FortiASIC NP6 | Eliminates performance bottlenecks with high performance, compact data center firewall. |
| 100GE Interfaces | High speed interfaces enable physical or virtual segmentation based on architecture, services, function, or policies. |
| Single Pane of Glass Management | Reduces management complexity with consolidated view of all security functions. |

## Setting a New Performance Standard in Data Center Security

- Breakthrough IPv4 to IPv6 firewall performance parity with compact 3U footprint conserves rack space and minimizes energy consumption
- Freedom to add integrated security technologies (such as IPS, App Control, VPN)
- Cloud-ready multi-tenant support and APIs for rapid orchestration
- FortiOS 5 delivers the most complete, battle-tested set of security functions to protect your network and data

ICSA labs CERTIFIED ANTI-VIRUS
ICSA labs CERTIFIED FIREWALL - CORPORATE
ICSA labs CERTIFIED IPSEC - BASIC
ICSA labs CERTIFIED SSL VPN
ICSA labs CERTIFIED WEB APPLICATION FIREWALL

# HARDWARE



## Interfaces

1. USB Management Port
2. USB Port
3. Console Port
4. 2x GE RJ45 Management Ports
5. 6x 100GE CFP2 Slots

## Powered by FortiASICs

- Custom FortiASIC™ processors deliver the power you need to detect malicious content at multi-Gigabit speeds
- Other security technologies cannot protect against today's wide range of content- and connection-based threats because they rely on general-purpose CPUs, causing a dangerous performance gap
- FortiASIC processors provide the performance needed to block emerging threats, meet rigorous third-party certifications, and ensure that your network security solution does not become a network bottleneck

## Network Processor

Fortinet's new, breakthrough FortiASIC NP6 network processor works inline with FortiOS functions delivering:

- Superior firewall performance for IPv4/IPv6, SCTP and multicast traffic with ultra-low latency down to 2 microseconds
- VPN, CAPWAP and IP tunnel acceleration
- Anomaly-based intrusion prevention, checksum offload and packet defragmentation
- Traffic shaping and priority queuing

## Content Processor

The FortiASIC CP8 content processor works outside of the direct flow of traffic, providing high-speed cryptography and content inspection services including:

- Signature-based content inspection acceleration
- Encryption and decryption offloading

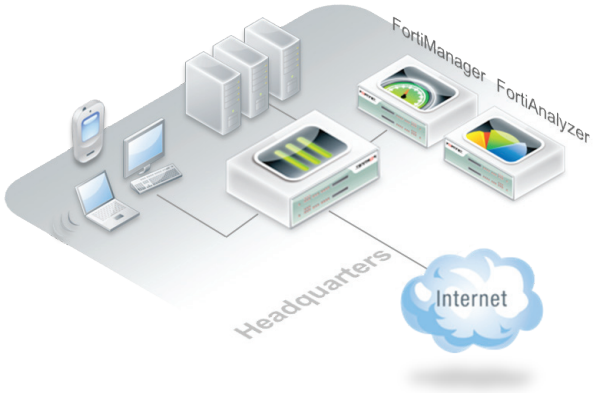
## 100GE Connectivity for Core Infrastructure

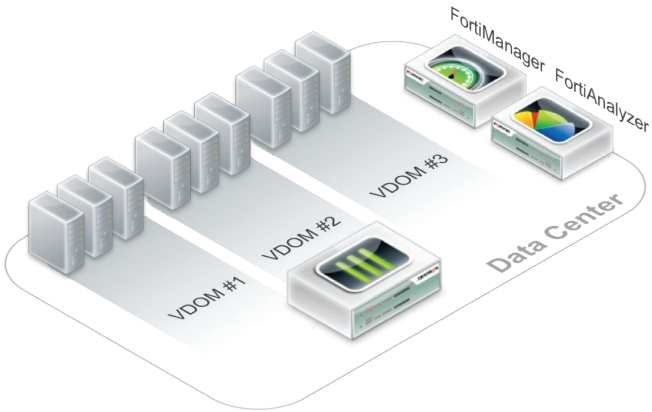
High speed connectivity is essential for network security segmentation at the core of data networks. The FortiGate 3810D provides 100GE interfaces, simplifying network designs without relying on additional devices to bridge desired connectivity.

# DEPLOYMENT

## Next Generation Perimeter Security

Firewalls alone aren't enough to block today's blended threats and attacks. Data centers require multi-layered security technologies that examine entire packet flows, from content inspection through reassembly, stopping threats at the perimeter. The FortiGate 3810D offers these critical functionality without compromising performance and scalability.



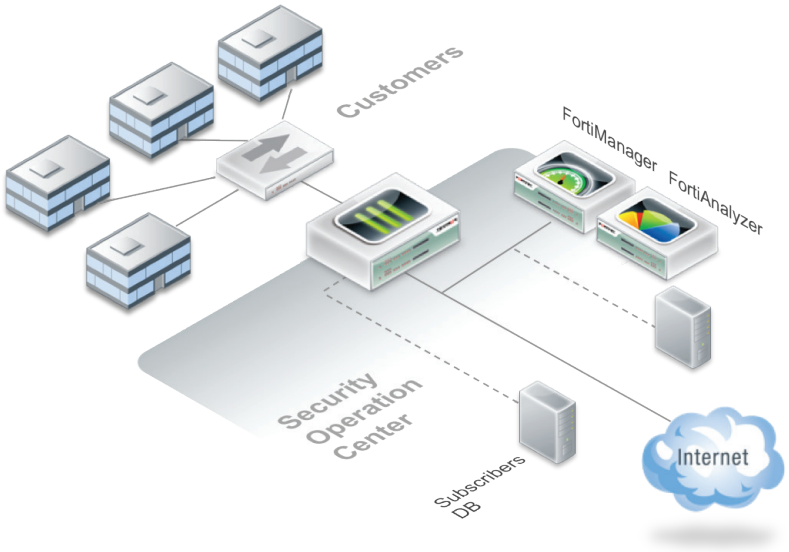




## Data Center Core Security

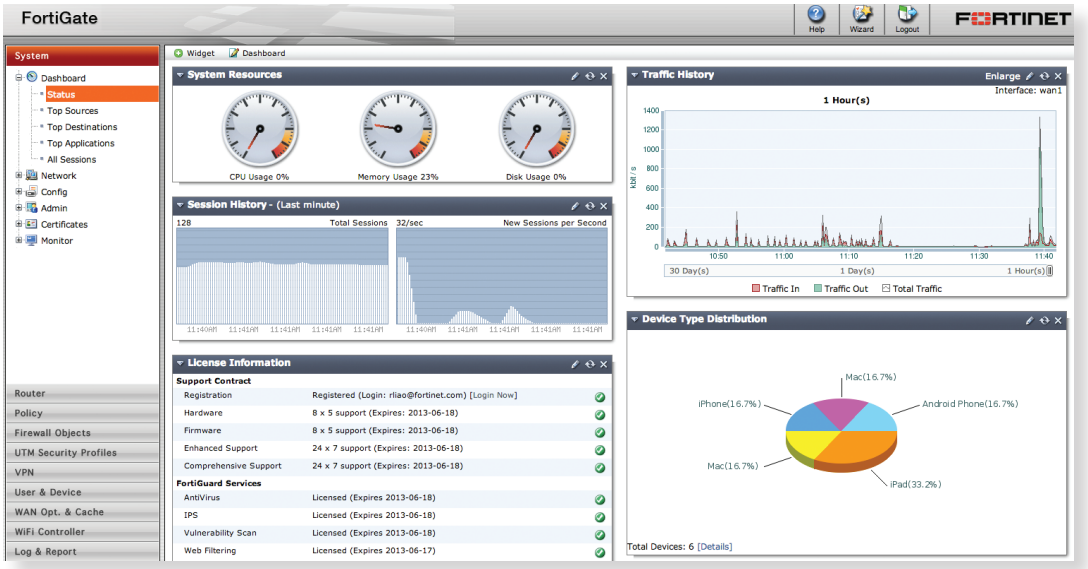
Today's high-speed data centers require not only perimeter security but also network protection between various network segments at the core. The FortiGate 3810D meets the requirement as a security gateway with superior next generation firewall performance and features. 100GE interfaces allow connectivity between the segments without the need of bridging devices.

## MSSP Solution

The FortiGate 3810D delivers comprehensive security for Managed Security Service Providers (MSSPs). The full suite of Fortinet integrated management applications — including granular reporting features — offer unprecedented visibility into the security posture of customers while identifying their highest risks.



# SOFTWARE FEATURES




**FortiOS Dashboard — Single Pane of Glass Management**

## Unique Visibility and Control

FortiOS allows greater traffic visibility and more consistent, granular control over users, devices, applications and sensitive data. Dashboard widgets allow you to quickly view and understand real-time network activities and threat situations.

## Ease of Use

FortiOS lowers operational costs and reduces IT staff workload. Single pane of glass management and centralized analysis ensure consistent policy creation and enforcement while minimizing deployment and configuration challenges.

## Comprehensive Systems Integration

Integration with external systems are possible with wide range of interfacing protocols support and certified solution partners. You can rely on facilities such as SNMP, sFlow and syslog for monitoring purposes. Integration with provisioning systems and custom portals is possible with Web Service APIs via FortiManager. Scripting using various scripting languages is supported by manipulating CLI commands.

## Proven with Industry Validation

FortiGate holds more industry certifications than competitive products, assuring feature quality and providing you best-of-breed protection.

## Robust Virtual Systems

FortiOS Virtual Domains (VDOMs) is proven method of dividing a FortiGate unit/cluster into two or more virtual units that function as independent units. It has the industry's most comprehensive virtualization capabilities to meet today's complex MSSP deployments.

## Identity-Centric Enforcement

FortiOS supports both local and remote authentication services such as LDAP, RADIUS and TACACS+ to identify users and apply appropriate access policies and security profiles accordingly. It can simplify identity based implementations and provide a seamless user authorization experience with single sign-on capabilities. FortiOS has strong PKI and certificate-based authentication services while also integrating an internal two-factor authentication server for additional security.

# SOFTWARE FEATURES

## Extensive Network Support

FortiOS meets numerous network design requirements. A wealth of routing, multicasting and network resiliency protocols are supported for interoperating with other networking devices.

## Superior IPS capabilities

Over 4000 IPS signatures enables you to stop attacks that evade more conventional firewalls. Behavior-based heuristics recognize zero day threats for which no signature has been created.

## Application Control

Advanced application control lets you define and enforce policies for thousands of applications running across networks regardless of port or the protocol used for communication.

## Powerful Policy Management

Two types of policy management views — global and section view — are available to suit your preferences. Policy objects can be easily edited from the policy table. Available management features include policy object search, tagging, sorting and filtering.

With FortiManager integration, you have the ability to set up sophisticated policy implementation and provisioning workflows to meet compliance or operational requirements. FortiAnalyzer enables complete and accurate configuration audit trails to reside externally for secured storage.

## Flexible Role-based Administration

Access profiles can be defined to provide granular access to VDOMs and system functionalities. This is valuable in facilitating compliant enterprise-class security operation workflows.

## Beyond Next Generation Firewall Capabilities

FortiOS supports various value-adding components to the network that is unique in the market. This includes in-box token server, wireless controller and vulnerability scanner. These features simplify network design and deployment while also providing more secure implementations without incurring additional cost.

## Broad IPv6 Support

Maintaining security for both IPv4 and IPv6 traffic will be crucial to the success of mixed networks. Malware and network threats are independent of IPv4 or IPv6. FortiOS is able to use IPv6 security policies to provide access control and UTM protection for IPv6 traffic. FortiOS has been successfully evaluated as compliant with core protocol and interoperability tests defined by IPv6 Ready Logo Phase 2.

## World-Class Technical Support and Documentation

Fortinet FortiCare support offerings provide comprehensive global support for all Fortinet products and services. You can rest assured your Fortinet security products are performing optimally and protecting your users, applications, and data around the clock.

## More Features with FortiCarrier Software License

- SIP/IMS signaling firewall protects internal infrastructure and service against malicious messages and overload while providing NAT services and redundancy, providing VoIP edge scalability and a platform for managed security services
- MMS security — content scanning and protection (keyword blocking, antivirus, file-type blocking, antispam detection) with per-user services provide enhanced end-user security for increased uptime and higher customer satisfaction
- GTP firewall delivers protocol anomaly detection and prevention with multiple filter options for end-to-end security

*For complete,up-to-date & detailed feature set, please refer to the Administration Handbook and FortiOS Datasheet

# SPECIFICATIONS

| | FORTIGATE 3810D |
|---|---|
| **Interfaces and Modules** | |
| 100 GE CFP2 Slots | 6 |
| GE RJ45 Management Ports | 2 |
| USB Ports (Client / Server) | 1 / 1 |
| Console Port | 1 |
| Internal Storage | 960 GB |
| Included Transceivers | NIL |
| **System Performance and Capacity** | |
| Firewall Throughput (1518 / 512 / 64 byte, UDP) | 320 / 320 / 175 Gbps |
| Firewall Latency (64 byte, UDP) | 5 µs |
| Firewall Throughput (Packet per Second) | 262.5 Mpps |
| Concurrent Sessions (TCP) | 95 Million |
| New Sessions/Sec (TCP) | 480,000 |
| Firewall Policies | 100,000 |
| IPsec VPN Throughput (512 byte) | 135 Gbps |
| Gateway-to-Gateway IPsec VPN Tunnels | 40,000 |
| Client-to-Gateway IPsec VPN Tunnels | 64,000 |
| SSL-VPN Throughput | 10 Gbps |
| Concurrent SSL-VPN Users (Recommended Maximum) | 30,000 |
| IPS Throughput | 25 Gbps |
| Antivirus Throughput (Proxy Based) | 7.5 Gbps |
| Virtual Domains (Default / Maximum) | 10 / 500 |
| Maximum Number of FortiAPs (Total / Tunnel Mode) | 4,096 / 1,024 |
| Maximum Number of FortiTokens | 5,000 |
| Maximum Number of Registered FortiClients | 20,000 |
| High Availability Configurations | Active / Active, Active / Passive, Clustering |

| | FORTIGATE 3810D |
|---|---|
| **Dimensions and Power** | |
| Height x Width x Length (inches) | 5.2 x 17.4 x 26.5 |
| Height x Width x Length (mm) | 133 x 442 x 673 |
| Weight | 59 lbs (26.8 kg) |
| Form Factor | 3 RU |
| AC Power Supply | 100–240V AC, 50–60 Hz |
| Power Consumption (Average / Maximum) | 832W / 1100W |
| Heat Dissipation | 3754 BTU/h |
| Redundant Power Supplies | Yes, Hot Swappable |
| **Operating Environment and Certifications** | |
| Operating Temperature | 32–104°F (0–40°C) |
| Storage Temperature | -31–158°F (-35–70°C) |
| Humidity | 20–90% non-condensing |
| Operating Altitude | Up to 7,400 ft (2,250 m) |
| Compliance | FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB |
| Certifications | ICSA Labs: Firewall, IPsec, IPS, Antivirus, SSL-VPN |

Note: All performance values are "up to" and vary depending on system configuration. Antivirus performance is measured using 44 Kbyte HTTP files. IPS performance is measured using 1 Mbyte HTTP files. IPsec VPN performance is based on 512 byte UDP packets using AES-256+SHA1.

For complete, up-to-date and detailed feature set, please refer to the Administration Handbook and FortiOS Datasheet.

# ORDER INFORMATION

| Product | SKU | Description |
|---|---|---|
| FortiGate 3810D | FG-**3810D** | 6 x 100GE LR4/SR10 CFP2 slots, 2 x GE RJ45 Management Ports, 960 GB SSD onboard storage, dual AC power supplies |
| **Optional Accessories** | | |
| 100GE CFP2 transceivers, short range | FG-TRAN-CFP2-SR10 | 100GE CFP2 transceivers, 10 channel parallel fiber, short range for all systems with CFP2 Slots |
| 100GE CFP2 transceivers, long range | FG-TRAN-CFP2-LR4 | 100GE CFP2 transceivers, long range, over single mode fiber, for all systems with CFP2 Slots |
| 100GE SR10 to 10 x 10GE Fan Out Cable | FG-CABLE-SR10-SFP+ | 100GE SR10 to 10 x 10GE SFP+ 1M Fan Out Cable |
| AC power supply | SP-FG3700D-PS | AC power supply for FG-3700D and FG-3810D |

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